Energy EFFICIENCY

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News From BPA - Your Northwest Energy Partner

Sharing Ideas In A Deregulated Utility Environment

As the opportunities and challenges of deregulation spin around us, it's interesting, if not inspiring to know how our peers are approaching this change. Even more important may be finding ways to collaborate for better success. So, how does one go about tapping ideas and learning first hand what's happening with others in the industry. For some utilities, they look to the 'CHUMS.'

Conservation Head Utility Meetings (CHUMS) in the past, was a series of informal roundtables that regularly brought utilities together in the Tri-Cities to share ideas and information. Their focus was on commonalties and challenges faced when operating BPA conservation programs. Darroll Clark of Franklin County PUD in Pasco, Wash., remembers the spirit of CHUMS as a place where discussions were productive and coordination of shared experiences created effective solutions to utility specific problems.

Unfortunately, the opportunity for roundtables and networking faded with the absence of BPA-funded conservation programs. Also, the emerging competitive utility environment led to the perception that utilities were only interested in selling their own products or services.

The favorable results of the prior CHUMS meetings and some insight from a "Key Account Training" by Bryan Singletary, left Clark wondering if there wasn't a place for CHUMS in the future. Both experiences positively expressed a need for public power entities to work together in order to gain efficiencies and combat competition.

For Clark, these differing views about the changing industry raise a fundamental question of whether public power should be divided among themselves, or is there more value in unity? He decided to explore this question with other utilities by hosting a reconvening of the CHUMS group in late November. Nine area utilities participated.

The November meeting provided an opportunity to test the waters and see if utilities were indeed interested in sharing ideas and working together in an *informal environment* to accomplish common goals. All initial indications suggest that 'YES' utilities are willing to partner to gain efficiencies in an informal atmosphere of open exchange. The CHUMS concept is a valuable one to draw on.

Continued on page 2

Inside

BONNEVILLE POWER ADMINISTRATION

Sharing Ideas In A Deregulated Utility Environment *Continued*

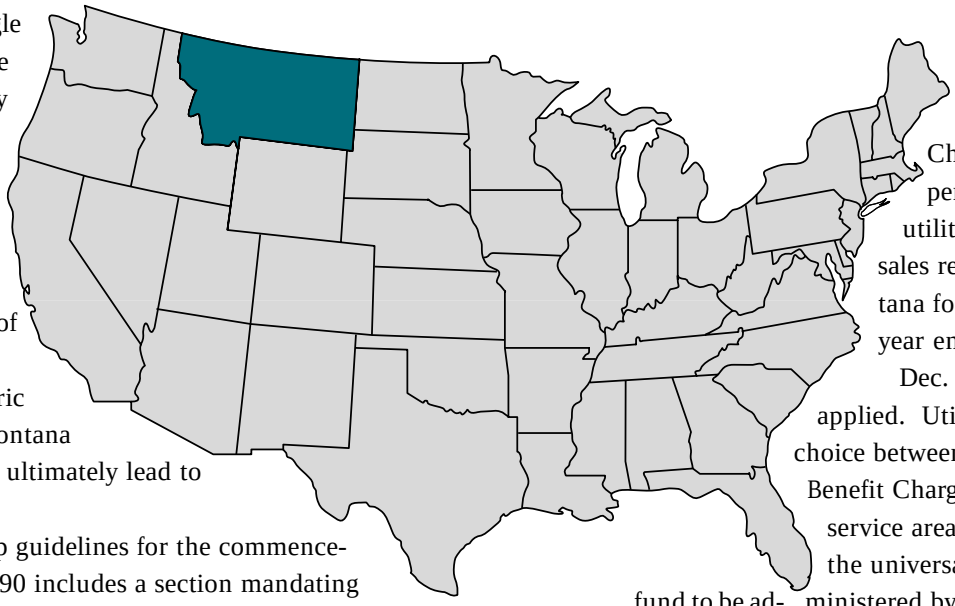
Good communication will be essential to build on the positive results of November's meeting and move forward in the delivery of value-added information to participants. Clark envisions the group getting to the point where tasks are assigned to teams who in turn, focus their expertise on a specific product or service. An alliance formed in the Tri-Cities area is a good working model of this type of effort. This alliance, formed by five utilities, shares costs and expertise of a staff person for safety training. Ken Sugden, Manager of Franklin PUD, indicated to the Franklin staff that we should be looking for alliances that give us efficiencies.

By press time, the group will have met again. However, today it is called 'Energy Services Roundtables'. All utilities are invited to participate in future sessions. The group welcomes the chance to learn and share with others throughout the region. For more information, contact Darroll Clark, Franklin County PUD, at 509-546-5944.

- Chris Tash

A CHANGING ENVIRONMENT

Montana's Universal System Benefit Charge



The deregulation eagle has landed...at least in the state of Montana. On May 2, 1997, "The Montana Electric Utility Industry Recruiting and Consumer Choice Act," Senate Bill 390, took affect. With the passage of this state legislation, restructuring of the electric utility industry within Montana began in earnest and will ultimately lead to customer choice.

Along with setting up guidelines for the commencement of open access, SB390 includes a section mandating Universal Systems Benefits Programs (Benefits Programs). SB390 states, "Universal system benefits programs are established for the state of Montana to ensure continued funding of and new expenditures for energy conservation, renewable resource projects and applications, and low-income energy assistance during the transition period and into the future."

So... what does Universal System Benefits Programs actually mean to individual cooperatives and IOUs within Montana? And what steps need to happen to comply with the legislative requirements?

Within SB390, the dollar calculation to determine a utility's required contribution is reasonably clear. It says a Universal Systems Benefit Charge (Benefit Charge) of, "2.4 percent of each utility's annual retail sales revenue in Montana for the calendar year ending Dec. 31, 1995," will be applied. Utilities will have a choice between using the Benefit Charge in their own service area or paying into the universal systems benefit fund to be administered by a state or other non-profit entity. The time frame for the Benefit Charge begins July 1, 1999, and continues until July 1, 2003. Beyond the 2003 date, it's unclear what will happen.

It is evident from on-going talks with cooperatives that most will want local control over how Benefit Charge monies are spent. Comments offered by Warren McConkey, Manager, Flathead Electric Cooperative, during the Legislative Transition Advisory Committee meeting in October, made it clear that co-ops will keep doing what they've done in the past. They will continue work that meets universal system benefits programs requirements and public purposes locally.

Continued on next page

Montana's Universal System Benefit Charge
Continued

Will cooperatives need to ramp up their commitment to public benefits? That depends on the utility. For some it may mean an increase in conservation contributions over recent years. For others, no change will be necessary. In either case, the amount required is still lower than what was spent at the height of conservation activity.

According to Ric Brown, Manager, Ravalli County Electric Cooperative, "Provided the language of SB390 is interpreted the way it was intended, there will be no major changes in the way Ravalli County Electric continues to provide public benefits. There may be a shift in certain things, but no major financial impact is expected." Brown explains that Ravalli is already funding Benefits Program type activities at a level above what their calculated requirement will be under deregulation.

What programs and activities count toward satisfying this new legislation? A subcommittee to Montana's Transition Advisory Committee has been formed to give guidance on implementing the Benefits Programs. Cooperatives have suggested that a list of agreed upon items be put together as a "smorgasbord". From this, utilities can select what is cost-effective for them and beneficial to their end-users. Another suggestion is to set cost-effectiveness guidelines and let individual utilities base their choices on that criteria alone. One thing is clear - SB390 says 17 percent of the Benefit Charge must go to low-income related activities.

Another as yet unknown cited by Gary Mahugh, Manager of Marketing and Member Services at Flathead Electric, is how regional efforts such as the Northwest Energy Efficiency Alliance and market transformation will fit in. Will the funding of these activities continue and can they be counted toward the Benefits Programs?

BPA is working to determine what part of the current wholesale power rate can be attributed to conservation activities acquired by SB390. It is assumed that BPA customers in Montana will be able to use this calculation to off-set a part of their Benefits Charge requirement. No interpretation on this issue is out as yet.

Questions continue as Montana looks closer at implementing its legislation. How will monies be collected and distributed? Who will be responsible for verifying that Benefits Programs targets have been met? How will the cost-effectiveness issue be dealt with? How will pooling credits work? Who should administer the state fund?

We'll see more answers and draft recommendations from the Benefits Programs subcommittee as the state proceeds with deregulation. For now Montana utilities interested in opening up their service areas are busy designing individual Transition Plans to be filed with the Public Service Commission. These plans must be filed one year prior to opening thier service area.

The actual road to final open access is proving to be a bit hazy, but Montana is off and running.....

Check the internet for has more information on this topic. The actual SB 390 plus a summary of the bill is at http://www.psc.mt.gov/gaselec/elec.htm. A ConWeb article is at http://www.newsdata.com/enernet/iod/conweb

—- *Marla McCombie*

WWW.

Visit Energy Efficiency's Web site at: http://www.bpa.gov/Energy/N/default.htm

DID YOU KNOW?

Energy expenditure for grocery stores and supermarkets are usually the second-highest operating expense, after labor costs. Typical grocery stores use 30 to 50 kWh per square foot per year.

'97 Results Almost Double Expectations

The goal was 29, the result was 55! Average megawatts of energy savings that is.

Due to another year of hard work, dedication and excellent program management, utilities and BPA have presented the northwset region with another 55 aMW of new energy savings. An amount that far exceeds the 29 aMW target we had set for ourselves.

Most of the savings come from work in the milti-sector. This is a reflection of how utilities have chosen to target their agreement dollars.

SECTOR	aMW SAVINGS
Commercial	5
Industrial	7
Residential	0
Multi-Sector	28
Building Codes	15
Total	55

This year's megawatts bring the total energy savings accomplished since 1982, through BPA sponsored conservation efforts, up to 690 aMWs. In other words, we've been able to "stretch" the use of the Columbia River to serve the power needs of almost 500,000 more people than was possible when the Regional Act passed in 1980.

More detailed information on costs and savings from fiscal year 1982 through fiscal year 1997 can be found in BPA's "Red Book" (Conservation and Generation Resource Energy Data).

– Sharon Doggert

Communities Benefit From OMECA Success

The communities of Ashland, Forest Grove, McMinnville, Milton-Freewater, Monmouth, and Springfield are more energy efficient today thanks to the collective efforts of Oregon Municipal Energy and Conservation Agency (OMECA). A group of Oregon municipal utilities, joined as OMECA, has exceeded a three-year energy savings goal. A clear benefit of OMECA is the collaborative planning and the opportunity for member utilities to exchange technical and support resources.

Human resources are also shared. All members have done projects in support of one another. Whether it is spending a morning at a fellow OMECA utility on a project or sending a technical staff member to assist on an audit, the OMECA members have the benefits of pooling resources.

Since it began in 1994, OMECA's mission has been to pursue energy conservation by subscribing to the theory that the whole is greater than the sum of its parts. Pooling the expertise of all six of its member utilities, OMECA has demonstrated the value of cooperating in conservation and created a model for serving customers in a competitive world.

OMECA's collective efforts to capture energy efficiencies out of local electric systems made it possible to exceed their 4.2 aMW savings goal. OMECA acquired the energy savings at an average of 1.5 cents per kilowatt-hour, a cost competitive with today's wholesale power market and far below the target of 2.4 cents per kilowatt-hour.

The conservation staffs of the OMECA utilities, including the City of Ashland, McMinnville Water & Light, Forest Grove Light & Power, City of Monmouth, Milton-Freewater Light & Power, and Springfield Utility Board, remain optimistic about continuing energy services to their customers when BPA funding ceases. The future of energy conservation is "probably not going to be the traditional rebate-based program," said OMECA Manager, Cathy Higgins. "It will be energy services that help the customer use electricity efficiently, and also help them understand, control and interpret their energy use, giving them the tools they need to make their own energy choices."

– Terry Regan

MARKET TRANSFORMATION

Northwest Energy Efficiency Alliance... It's A good thing

In the last year, the effectiveness of BPA's investments in market transformation has been multiplied by the contributions to the Northwest Energy Efficiency Alliance (Alliance). Because it tends to work behind the scenes, the Alliance is one of the least publicized success stories. It is co-funded with BPA by every investor owned utility in the Region. The Alliance Board (Board) includes representatives of the states, business, and environmentalists, as well as consumer owned utilities. It is a market-based approach to capturing energy efficiency that works with the industries and trade allies, with a deliberate policy of limiting the timing and amount of subsidies from utilities. In its first year the Alliance recevied national recognition for its innovative approach to energy efficiency from the National Energy Resources Organization.

The 18 member Board that adopts and oversees Alliance projects includes representatives of Kootenai Electric, Flathead Electric, Seattle City Light, Tacoma City Light, and Eugene Water and Electric Board, with Snohomish and the City of Idaho Falls observing as members-elected for next year. As a result of the decisions made by the Board over the last year, the Alliance has now committed to fund over $36,000,000 worth of projects. After accounting for operating expenses, the Board still has the opportunity to approve up to $20,000,000 more in projects. A number of the projects were proposed by the private sector, and market transformation funds will be matched directly by the companies involved. These include Seimens Solar for cyrstal growing, the Manufactured Housing Dealers association for Super Good Cents Homes, and the a consortium of window manufacturers in support of the Super Fenestration venture.

Utilities can often support and enhance these programs in their own service territory with advertising, information, selected incentives, and awareness building.

More information on all the projects connected with the Alliance can be found at their website, www.nwalliance.org, or by calling the Alliance offices at 503-827-8416.

- Ken Keating

SOME KEY SUCCESSES!

WashWise - the program to demonstrate to manufacturers that there is consumer interest and acceptance of front loading washing machines, resulted in over 14,000 units sold in the Pacific Northwest in the last half of 1997. Although these figures have put a strain on the available program resources, the machines are a clearly visible symbol of the presence of the Alliance in the marketplace.

Building Operator Certification program - in the state of Washington operated by the Northwest Energy Efficiency Council the program is also moving along successfully. It has exceeded its targets for enrollment and tuition revenue, and is approaching its goals in the number of people certified and transfer of the curriculum. The successes in Washington bode well for the efforts that are being undertaken in Oregon and Idaho to develop a regional certification program. The region will benefit from having a corps of people trained in the operation of commercial and institutional buildings.

LightWise Bulb program - sales of compact fluorescent bulbs under the program, tracked closely with original estimates of the number of bulbs to be sold in 1997 and negotiations are underway for a major campaign in early 1998. Staff is particularly pleased that GE has expressed interest in participating in the manufacturer rebate program, because it represents recognition by the industry of the importance of compact fluorescent lighting.

DID YOU KNOW?

If you replace 4 incandecent bulbs with compact flourescent bulbs, you've save the equivalent of 2,400 lbs. of coal over the life of the bulbs.

NEW TECHNOLOGY

Fuel Cells: An Efficent Alternative

The Bonneville Power Administration's Energy Efficiency Group, in partnership with Northwest Power Systems and DeNora Spa, are in the final stages of component production of the Proton Exchange Membrane (PEM) Fuel Cell System. This "PEMPower" system has a net output of 5 kW, and supplies DC as well as AC power. Hydrogen for the fuel cell is supplied by an on-board reformer that converts methanol (CH_3OOH) and water (H_2O) into hydrogen (H_2) and Carbon Dioxide (CO_2). It's expected the system will be at least 50 percent more efficient at converting fuel into electricity than currently available diesel gen sets.

The reformer to supply hydrogen for the 5 kW system has been fabricated and the system's fuel cell stack should be received from Italy by the end of January. Over the next few months, we will integrate the fuel cell stack, reformer, and balance-of-plant into a field portable unit, which will be ready for demonstrations.

This system works well in remote locations where propane or diesel powered backup generation and battery storage would otherwise be used. Since the system is virtually silent, the system is ideal for use in noise-sensitive areas. For applications that require more than 5 kW of power, the units can be configured with larger components, to provide up to 50kW.

If you would like more information about the fuel cell technology you may contact Mark Jackson of BPA at (503) 230-5475.

-Mark Jackson

Sulfur Lamp and Fixture Demonstration

Through a partnership between Berkley Lab and Cooper Lighting, a major U.S. lighting manufacturer, prototypes of the new high-efficiency lighting fixtures, which capitalize on the brightness and remarkable energy efficiency of the sulfur lamp, have been installed in the headquarters lobby of the Sacramento Municipal Utility District in California.

"This system will make it practical for sulfure lamps to be integrated into common interior spaces...," says Michael Siminovitch, a principal investor in the Building Technologies Program's Lighting Group. Indoor lghting accounts for about 25 percent of the electrical energy consumed in the U.S. each year. This consumption could be cut in half if existing lighting systems were replaced with advanced energy-efficient alternatives.

The sulfur lamp, which was unveiled about two years ago, consists of a golf-ball sized glass globe filled with argon and tiny amount of sulfur. The 1,000-watt version of this microwave-powered lamp is six times more efficient and 75 times brighter than a conventional 100-watt incandescent lamp.

A major impediment to the widespread adoption of the sulfur lamp has been the lack of high-efficiency fixture systems for delivering its light to the interiors of commercial spaces. One way of distributing the illumination is by using a light guide, which is a hollow tube lined with a reflective material. Light from the source travels along the reflective material, diffusing out to illuminate the space. "Illumination from a light guide can pose problems with glare and low efficiency when used to light interior spaces," according to Siminovitch. What has been needed is an indirect, low-glare system that takes advantage of not only the high energy efficiency and brightness of the sulfur lamps, but also their high Color Rendering Index, which puts them on par with sunlight for quality of illumination.

Simonovitch, Carl Gould, and Erik Page, all with the Lighting Group, have developed a fixture that can be fitted with different reflectors to provide a variety of light distribution patterns. The fixtures can also be mounted in various ways to provide a high degree of flexibility and suitability across a broad range of applications. The free-standing kiosks are especially adaptable. A single kiosk could replace from 10 to as many as 30 conventional ceiling fixtures in an open-space office. In laboratory test, the light fixtures scored an effeciency rating of 90 percent.

"Cooper Lighting brought insights and capabilities to the table as to how this technology could be manufactured," says Siminovitch. It's a good example of how the products of science can lead to commercial opportunities through an industrical partnership - "A Sulfur Lamp and Fixture Demonstration at SMUD," Center for Building Science News, Spring 1997; Lynn Yarris

PASS IT ON

Heater Recall May Impact Super Good Cents Homeowners

In October 1997, Cadet Manufacturing Co. issued a recall on 190,000 wall heater units. Federal safety officials say the heaters pose a fire risk.

Recalled heaters were installed from 1985 through 1992 in homes in Oregon, Washington, California, Idaho, Montana and Wyoming. Some may have been installed in homes as part of the Super Good Cents program. As such, utilities may get calls from SGC program participants. Inquiries can be directed to Cadet Manufacturing Co. at 1-800-567-2613.

Owners are being instructed to stop using these heaters immediately because their switches can emit sparks that could start a fire.

The heaters being recalled have the Cadet or Encore brand name on the grill and a model number beginning with FX, FW, LX, or ZA, followed by three numbers, on a label on the front of the internal heater assembly.

Exempt from the recall are heaters with white ceramic limit-switch casings.

- Sharon Doggitt

Plug into the NW Energy Efficiency Business Listing

"Net Surfers" rejoice! There's a new service on-line. One that can assist you in finding the help you need to get your energy-related projects off the ground and on to completion. It's called the Northwest Energy Efficiency Business Listing. And, it resides in BPA's web page. To get there use the path http://www.bpa.gov and look under Energy Efficiency Making Connections.

The Business Listing is a collection of firms and professionals that offer energy efficiency products and services to Northwest entities. It functions as a directory, similar to your telephone yellow pages, only it's on-line instead of in a book. Like the yellow pages, you can look for a service category and find a variety of businesses that provide the service. But, because it's on-line you can also connect through direct links to many individual company web sites where more in-depth information exists.

Over 400 companies are currently represented in the Business Listing. These companies specialize in such services as lighting, metering, power quality, HVAC, engineering design and more.

The Business Listing is one outcome of BPA's partnership efforts. We created it as an opportunity for private firms to share their capabilities more broadly with the energy community. Prior to this, such a list did not exist.

We continue to reach out to the business world to expand the list. If you know of companies that might want to be a part of the Northwest Energy Efficiency Business Listing, send them our way.

If you want to improve yours or your customers' energy use but don't know where to start, plug into the Business Listing and see what you find. Or, contact your BPA Energy Efficiency Representative, they can help too.

- Sharon Doggitt

Oregon Business Energy Tax Credit

The Administrative Rules for the Oregon Business Energy Tax Credit (BETC) Program were recently revised. BETC provides tax credits to help Oregon businesses use energy more efficiently, recycle waste, develop renewable energy resources, use alternative transportation methods or alternative-fuel vehicles. Any Oregonian who pays business taxes and qualifies as a trade, business, or rental property owner may qualify for a tax credit.

Evan Elias and Colleen Summers at the Oregon Office of Energy are the contacts for technical questions pertaining to this program. They can be reached at 1-800-221-8035. Program applications can be requested through this same telephone number.

- Phyllis Dowty

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We would like to hear from you .

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